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No.99-1935

IN THE
SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1999

COLUMBUS-AMERICA DISCOVERY GROUP, INC.
Petitioner,

v.

ATLANTIC MUTUAL INSURANCE COMPANY, et al.,
Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Fourth Circuit

MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE AND BRIEF AMICUS CURIAE OF THE NATIONAL ASSOCIATION OF ACADEMIES OF SCIENCE

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22 pp

The National Association of the Academies of Science hereby moves, pursuant to Rule 37.2 of the Rules of this Court, for leave to file the attached brief as *amicus curiae*. Although counsel for petitioner has consented to the filing of this brief, counsel for respondents was contacted and refused to consent to the filing of this brief.

The National Association of Academies of Science is comprised of 45 member academies and is devoted to promoting scientific inquiry, advancing education and fostering practical and theoretical progress in science. The Association believes that the preservation of incentives to engage in scientific inquiry is a matter of great significance to us all. For instance, attempts to improve our quality of life have led scientists into previously unexplored areas, leading to breakthroughs in many fields, from medicine to bio-science and improved technologies. The earth's seas provide a virtually limitless frontier for advancing numerous fields of scientific study.

While the possibilities for scientific information from new discoveries in the deep seas are virtually limitless, and the practical benefits many, the ability and opportunity to conduct the costly and time-consuming research necessary for such endeavors is greatly diminished when scientists and engineers are subject to protracted and expensive litigation over stale claims. The location and conservation of submerged and maritime historical cultural resources depends on costly specialized technologies. The ability of explorers to obtain financial backing, either through private venture capital or commercial loans, will depend on their ability to determine the legal standard and management regime applicable to their discoveries. In undermining such predictability, the practical effect of the conflict among the circuits over whether admiralty

courts may infer abandonment of long-lost shipwrecks will be to impede opportunities presented for scientific research in the deep seas. The immediate effect of the court of appeals' decisions below is to undermine certainty and predictability in the quest for innovative exploration. When a discovery team of scientific researchers, supported by private financial investment, can no longer be assured of the legal standard for abandonment that will be used to determine their rights in the material they recover, continued advanced deep ocean exploration will suffer. Fewer and less sophisticated explorations will undoubtedly mean fewer and less significant discoveries.

The existing conflict among the circuits over the admiralty law standard for abandonment threatens not only deep sea exploration, but space exploration as well. Because the untamed frontiers of both deep ocean and outer space pose many of the same challenges to any human presence, legal practices and rules affecting human presence in the ocean will likely influence those in outer space.

If a responsible group, such as Columbus-America Discovery Group, is to be tied up in legal proceedings for a decade or more because of confusion over the admiralty law standard for abandonment—and is thereby prevented from carrying its work to completion—no scientists, explorers, archaeologists, or entrepreneurs will risk undertaking such enormously expensive projects; and they certainly will have little ability to promote the kind of scientific and educational programs that might be otherwise available. If the court of appeals' decisions below stand, it will aid only those groups that sit on the sidelines and wait for a judicially-created windfall from the hard work and ingenuity of others.

Exploration and scientific discoveries will almost certainly decline and all mankind will suffer.

For these reasons, the Court should grant this motion for leave to file the attached brief *amicus curiae* in support of the petitioner.

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July 1, 2000

QUESTION PRESENTED

Should the Court resolve the conflict among the circuits concerning the admiralty law test for the abandonment?

TABLE OF CONTENTS

Page

QUESTION PRESENTED i

TABLE OF AUTHORITIES iv

INTEREST OF AMICUS CURIAE 1

REASONS FOR GRANTING THE WRIT 2

I. THE ISSUE OF THE ADMIRALTY LAW STANDARD FOR ABANDONMENT IS IMPORTANT TO SCIENTISTS, EDUCATORS AND STUDENTS THROUGHOUT THE NATION 2

A. The Conflict Among the Circuits on the Admiralty Standard for Abandonment Has a Stifling Effect on Nascent Scientific Endeavors To Develop New Medicines, Advance Bio-Science and Improve Technologies In the Deep Seas 3

B. The Circuit Conflict Impedes Pioneering Scientific Efforts in the Deep Seas, Outer Space and Other Extreme Environments 7

C. The Circuit Conflict Squanders Educational Opportunities in the Deep Seas 9

II. THE DECISION BELOW IS IN CONFLICT WITH THE OTHER CIRCUITS AND SENDS THE WRONG MESSAGE TO OUR NATION'S SCIENTISTS, EXPLORERS AND STUDENTS. 11

CONCLUSION 13

TABLE OF AUTHORITIES

CASES **Page**

Columbus-America v. Atlantic Mutual Ins. Co., 974 F.2d 450 (4th Cir. 1992), *cert. denied* 507 U.S. 1000 (1993) 10,12

Columbus-America Discovery Group, Inc. v. The Unidentified, Wrecked, and Abandoned Sailing Vessel, 1989 AMC 1955 (E.D.Va. 1989) 4

Columbus-America Discovery Group v. Atlantic Mutual, et al., Civ. A. No. 87-363-N, 1993 WL 580900, *9 (E.D. Va. Nov. 18, 1993), *aff'd*, 56 F.3d 556 (4th Cir.), *cert. denied*, 516 U.S. 398 (1995) 5

Columbus-America Discovery Group v. Atlantic Mutual, et al., 56 F.3d 556 (4th Cir.), *cert. denied*, 516 U.S. 938 (1995) 6

Deep Sea Research, Inc. v. The Brother Jonathan, et al., 102 F.3d 379 (9th Cir. 1996) *aff'd in part, vacated in part on other grounds, and remanded sub nom., California v. Deep Sea Research, Inc.* 523 U.S. 491 (1998) 11

Fairport International Exploration, Inc. v. The Shipwrecked Vessel Known as the Captain Lawrence, et al., 105 F.3d 1078, 1084 (6th Cir. 1997), *vacated and remanded on other grounds*, 523 U.S. 1091 (1998) 11

Miles v. Appex Marine Corp., 111 S. Ct. 317 (1990) 9

Moragne v. States Marine Lines, Inc., 398 U.S. 375 (1970) 9

TABLE OF AUTHORITIES—Continued

Page

Sea Hunt v. The Unidentified, Shipwrecked Vessel or Vessels, etc., 47 F. Supp. 2d 678 (E.D. Va. 1999) 12

ARTICLES AND MISCELLANEOUS

H.H. Almond, Jr., *Sea Salvage Law Could Solve' Chaos of Space Debris,* Defense News, Dec.10, 1990 9

Conrad G. Welling, *Mining of the Deep Seabed in the Year 2010,* 45 La. L. Rev. 1249 (1985) 6

Charles E. Herdendorf, *Discovery in an Alien Environment,* American History Illustrated, Mar.-Apr. 1991, at 66 4

E. Herdendorf et al., *Science on A Deep Ocean Shipwreck* (1996) 8

Drew F. T. Horrell, Note: *Telepossession is Nine-Tenths of the Law: The Emerging Industry of Deep Ocean Discovery*, 3 Pace Y.13. Int'l L. 309 (1991) 7,9

Office of Technology Assessment, Underwater Archaeology and Maritime Preservation Background Paper, OTA-BP-E-37 (1987) 7

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BRIEF OF THE NATIONAL ASSOCIATION OF ACADEMIES OF SCIENCE AS AMICUS CURIAE IN SUPPORT OF PETITIONER

STATEMENT OF INTEREST

The National Association of Academies of Science is comprised of 45 member academies and is devoted to promoting scientific inquiry, advancing education and fostering practical and theoretical progress in science. It encourages all scientific disciplines, in all parts of our

nation.[1] The National Association is especially active in stimulating young people interested in science, and works closely with high school and collegiate academies of science to promote interest in science and to encourage scientific research. Because it believes that the law should promote science by fostering the fundamental national tradition, that vision, hard work and ingenuity pay off—and because the conflict among the circuits over the admiralty law standard for abandonment, embodied in the decisions below, presents precisely the opposite message to the young people of our nation—the National Association of Academies of Science respectfully believes this matter warrants the Court's attention.

REASONS FOR GRANTING A WRIT OF CERTIORARI

I. THE ISSUE OF THE ADMIRALTY LAW STANDARD FOR ABANDONMENT IS IMPORTANT TO SCIENTISTS, EDUCATORS AND YOUNG PEOPLE THROUGHOUT THE NATION

The Fourth Circuit's adherence to the express abandonment theory has sent shock waves throughout the scientific community. It has baffled not only oceanographers, explorers, and discoverers, but also individuals and institutions representing a broad range of scientific,

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[1] Pursuant to Rule 37.6, the National Association of Academies of Science notes that counsel for Petitioner assisted in the drafting of a portion of this Brief by providing an update on the status of the proceedings, docketing information and a service list, and that Petitioner has assisted in the service and copying of this Brief.

pharmacological, technological, and biological interests. The court of appeals' standard, in practical effect, that admiralty courts may not apply common sense to consider the circumstantial evidence and infer abandonment, and instead that an express abandonment must be proved by clear and convincing evidence, is in conflict with the admiralty law standard for abandonment applied in the First, Fifth, Sixth, Ninth Circuits and Eleventh Circuits (which, themselves, are in conflict regarding the standard). More fundamentally, the notion that a loose consortium of insurance companies, which never stepped forward to assist in exploration or recovery efforts in any way, can appear in court at the last minute and successfully strip a team of engineers, scientists and explorers of the fruit of many years of vision, initiative, risk, and hard work shocks the national conscience. The circuit conflict, which has produced this unjust result, reflects an ever-widening gap among the courts which the Court should now resolve.

A. The Conflict Among the Circuits on the Admiralty Standard for Abandonment Has a Stifling Effect on Nascent Scientific Endeavors To Develop New Medicines, Advance Bio-Science and Improve Technologies In the Deep Seas

The preservation of incentives to engage in scientific inquiry is a matter of great significance to us all. Attempts to improve our quality of life have led scientists into previously unexplored areas, leading to breakthroughs in many fields, from medicine (including discoveries that may some day allow us to fight or slow diseases such as cancer and AIDS), to bio-science and materials science, to improved technologies and communications generally (especially in the

area of fiber optics). The earth's seas provide virtually untapped promise for advancing these and other fields of scientific study.

The practical effect of the circuit conflict is to detract from the opportunities presented. The immediate effect of the decisions below, and the unresolved conflict among the circuits, is to undermine certainty and predictability of the incentives for innovative exploration. Beyond that, the decisions raise the specter that future projects will be unable to support the scientific research and effort that have been hallmarks of the SS *Central America* Project. *See generally* Charles E. Herdendorf, *Discovery in an Alien Environment,* American History Illustrated, Mar.-Apr. 1991, at 66.

As noted by courts at all levels Columbus-America Discovery Group's recovery efforts have been unparalleled in maritime history. *Columbus-America Discovery Group, Inc. v. The Unidentified, Wrecked, and Abandoned Sailing Vessel,* 1989 AMC 1955, 1958 (E.D.Va. 1989). Columbus-America Discovery Group has developed new technologies and applications for maintaining the scientific and historical provenance of the *SS Central America,* thus preserving information and artifacts for future generations. *Id.* If the decision below stands, it will aid only those groups that sit on the sidelines and wait for a judicially-created windfall from the hard work and ingenuity of others.

Columbus-America's recovery effort is continuing beyond the ten percent (10%) of the shipwreck that has been explored to date, and will continue for many years into the future. Accordingly, the admiralty law standard for abandonment is a recurring issue that will confront Columbus-America in this case each time it files a motion for title to future recoveries.

"Abandonment" will be a crucial legal issue for Columbus-America for many years to come, since, each time it makes a recovery in the future, it will confront the express abandonment standard applied by the court below.[2]

The courts have repeatedly praised Columbus-America's scientific efforts. As the district court noted:

> From the inception of the project, [Columbus-America] had assembled experts in the various fields of science, archeology, history, maritime, marketing and publicity, to advise and assist in the use, care and preservation of the shipwreck site. Selection of the personnel to assist was from those most highly qualified and experienced in the contemplated activities....The same criteria [were] used in selecting the experts who were to evaluate, handle, care for and preserve the artifacts, scientific materials, information and knowledge obtained from the operation, and to preserve and make it available for future use by the public in research and learning.

Columbus-America Discovery Group v. Atlantic Mutual, et al., Civ. A. No. 87-363-N, 1993 WL 580900, *9 (E.D. Va. Nov. 18, 1993), *aff'd*, 56 F.3d 556 (4th Cir.), *cert. denied*, 516 U.S. 398 (1995). The court of appeals also observed:

> What Thompson and Columbus-America have accomplished is, by any measure, extraordinary. We can

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[2] The Settlement Agreement between Columbus-America and the insurance companies does not abrogate Columbus-America's obligation to prove its title to future recoveries, nor does it affect the rights of claimants other than the insurance companies to assert claims of title to artifacts recovered on an on-going basis.

> say without hesitation that their story is a paradigm of American initiative, ingenuity, and determination. The courts have concluded its efforts provide a standard against which all others should be judged."

Columbus-America Discovery Group v. Atlantic Mutual, et al., 56 F.3d 556, 572, 576 (4th Cir.), *cert. denied*, 516 U.S. 938 (1995).

While the possibilities for scientific information from new discoveries in the deep seas are virtually limitless, and the practical benefits many, the motivation to conduct the costly and time-consuming research necessary for such endeavors is greatly diminished when scientists and engineers are subject to protracted and expensive litigation over stale claims.

Advances in marine technology have enabled exploration and expanded our knowledge of the deep ocean. "The last twenty to thirty years has produced a revolution in the knowledge of the seabed. In spite of this knowledge, we are still in the pioneering state of exploration of this very large area of the earth's surface." Conrad G. Welling, *Mining of the Deep Seabed in the Year 2010*, 45 La. L. Rev. 1249, 1254 (1985). Technological innovations have led to great improvements in underwater electronics and sensors, including television and data handling, and underwater lighting and photography. *Id.* The development of complex robots such as *Nemo*, which was created by Columbus-America Discovery Group to recover artifacts from the *SS Central America* was itself a useful contribution to the emerging technology of undersea mineral exploration. *See Id.* at 1257.

To the financial backer of such technology, however, "the technology may not be available until a respectable return on investment is obtained." *Id.* at 1262. Indeed, "cost remains the most prohibitive factor" in deep sea exploration. Drew F. T. Horrell, Note: *Telepossession is Nine-Tenths of the Law: The Emerging Industry of Deep Ocean Discovery, 3* Pace Y.13. Int'l L. 309 (1991). Unlike shallow-water efforts, the costs involved in finding and recovering long-lost items in the oceans' depths are substantial, running into the many millions of dollars for projects that often are unlikely to yield a dime.

The location and conservation of submerged maritime historical and cultural resources similarly depends on advanced, and often costly and highly specialized technologies. Working underwater is hazardous and difficult, especially in the deep seas. Exploration technologies such as side-scan sonar, sub-bottom profilers, magnetometers, and remotely operated vehicles can be prohibitively expensive, and the scientists and explorers who use them must be able to rely on the predictability of their rights in the find. U.S. Congress, Office of Technology, *Technologies for Underwater Archaeology and Maritime Preservation Background Paper,* OTA-BP-E-37, 8 (1987). Their ability to obtain financial backing, either through private venture capital or commercial loans, will usually hinge on their ability to point to a clear legal standard for abandonment—one undermined by the widening circuit conflict.

B. The Circuit Conflict Impedes Pioneering Scientific Efforts in the Deep Seas, Outer Space and Other Extreme Environments

Because of its practical effects in undermining the reasonable assurance scientists previously had of predicable legal rights, the conflict among the circuits, if unresolved, will likely undermine future scientific research and exploration in the deep seas. The conflict makes uncertain and unpredictable the management regime, as well as financial incentives, associated with technologically advanced discovery and recovery of deposits in the deep ocean, such as historic shipwrecks. The resulting lack of predictability will make it difficult to attract the enormous sums of private risk capital-and the enterprising scientists and engineers-required for such tenuous and challenging ventures. Resolving the current conflict is essential to ensuring certainty and to promoting the most sophisticated efforts to explore all aspects of our universe.

Many important advances in science have been made possible as a result of Columbus-America Discovery Group's perseverance. Columbus-America Discovery Group's scientists are performing eight types of experiments that fall generally within the fields of bioscience, physical and chemical studies, and historical analysis. These experiments include (1) deterioration of metal objects; (2) microbiological studies; (3) wood degradation studies; (4) indexing abyssal fauna; (5) concentration and composition of the food chain; (6) sedimentation studies; (7) biomedical and biochemical research; and (8) development of historical information. The scientific efforts have already led not only to discovery of eleven new species of marine life (some of which hold great

potential for medical applications), but also to advances in our knowledge in a variety of areas. *See generally* E. Herdendorf et al., *Science on A Deep Ocean Shipwreck* (1996).

Like exploration of the deep seas, space exploration will likely suffer adverse consequences if the decision below is allowed to stand. Because the untamed frontiers of both the deep ocean and outer space pose many of the same challenges to any human presence, legal practices and rules affecting human presence in the ocean will likely influence those in outer space. Many of the same issues affecting explorers and scientists in the deep seas will arise, and the space explorers will analogize to issues in deep ocean discovery, such as the concept of "telepresence." H.H. Almond, Jr., *Sea Salvage Law Could Solve' Chaos of Space Debris,* Defense News, Dec.10, 1990, at 34. A uniform rule is essential for exploration of such extreme environments as space and the deep ocean. *Cf Miles v. Apex Marine Corp.*, 498 U.S. 19, 27 (1990) (quoting *Moragne v. States Marine Lines, Inc.*, 398 U.S. 375, 401-02 (1970)(upholding the "principle that federal admiralty law should be a 'system of law coextensive with, and operating uniformly in, the whole country.'") The deleterious effects of the court of appeals' decision below may thus extend beyond the deep seas, into future developments in other remote environments.

C. The Circuit Conflict Squanders Educational Opportunities in the Deep Seas

Deep sea exploration presents enormous educational opportunities, perhaps even exceeding the potential of the deep oceans for advancing scientific research. Columbus--America Discovery Group's efforts to present seminars for

young people interested in scientific careers, to develop radio broadcasts through ham radio operators and to create two interactive laser disc videos on "Investigating Science" and "Investigating History" illustrate this potential. *See generally* Horrell, *supra.*

For example, the *SS Central America* Project has given students the opportunity to learn how the efforts of such scientists and entrepreneurs led to the discovery of eleven new species of sea life. Students learn how experiments are currently being performed on some of these species in the hope of discovering antigens to be used in the fight against cancer and other diseases and how others are being studied. Other species are being studied to assist food production. The incentives provided by the repose, certainty, and predictability of the inferential rule of abandonment had, heretofore, allowed a team of chemists, biologists, oceanographers and historians to discover an extraordinary deep sea community of life forms, to recover a lost part of America's heritage and to provide educational programs in museums across the country. Conversely, the doubts and confusion created by the circuit conflict hamstrings such efforts. As the dissenting opinion in the Columbus-America case put it:

> On remand, the district court will be faced with the difficult, if not impossible, task of determining which claims were paid by the insurance companies and in what amounts. This problem is caused by the insurance companies' failure to maintain the records necessary to establish their claims. Had the insurance companies not abandoned their claims they surely would have maintained true records necessary established their amount.

Columbus-America v. Atlantic Mutual Ins. Co., 974 F.2d 450, 457 n.7. (4th Cir. 1992), *cert. denied*, 507 U.S. 1000 (1993).

If a responsible group such as Columbus-America Discovery Group is prevented from carrying its work to completion, no scientists, explorers, archaeologists, or entrepreneurs will risk undertaking such enormously expensive projects; and they certainly will have little ability to promote the kind of educational programs otherwise available. If such multidisciplinary efforts are not encouraged by a uniform, national standard for abandonment under admiralty law, all mankind will suffer. It is imperative to provide all future search and recovery efforts with the promise that their costs will be reimbursed and their efforts will be amply rewarded.

II. THE DECISION BELOW IS IN CONFLICT WITH THE OTHER CIRCUITS AND STATE SUPREME COURTS, AND SENDS THE WRONG MESSAGE TO OUR NATION' SCIENTISTS, EXPLORERS AND YOUNG PEOPLE

Other than a handful of insurance interests that persist in refusing to admit the undeniable, the cases, commentators, law professors and legislators have virtually unanimously recognized that the circuits are profoundly divided regarding the admiralty law standard for abandonment. In fact, three U.S. Courts of Appeals, themselves, have expressly recognized the conflict. *See Columbus-America Discovery Group v. Atlantic Mutual Insurance Company*, 203 F.3d 291 (4th Cir. 2000); *Deep Sea Research, Inc. v. The Brother Jonathan*, et al., 102 F.3d 379, 387-88 (9th Cir. 1996), *aff'd in part, vacated in part on other grounds, and remanded sub*

nom. California v. Deep Sea Research, Inc., 523 U.S. 491 (1998); *Fairport International Exploration, Inc. v. The Shipwrecked Vessel Known as the Captain Lawrence, et al.*, 105 F.3d 1078, 1084 (6th Cir. 1997), *vacated and remanded on other grounds*, 523 U.S. 1091 (1998).

For example, the Fourth Circuit's express abandonment standard breaks with precedents in the First, Fifth, Sixth and Ninth circuits recognizing the ability of admiralty courts to draw an inference of abandonment based on circumstantial evidence. (Those circuits, in turn, are divided on the burdens of proof of abandonment and related issues). Moreover, the decision below applies a rule which, as a practical matter, imposes an impossible burden of proof on the explorer; in any case where a person purported to have succeeded to the interest of an original owner appears, the explorer must prove abandonment by clear and convincing evidence, "such as an owner's express declaration abandoning title." *Columbus-America Discovery Group v. Atlantic Mutual Insurance Co.*, 974 F.2d at 464; *Sea Hunt v. The Unidentified Shipwreck Vessel*, 47 F. Supp. 2d at 688 (express abandonment standard binding on all shipwreck recoveries in Fourth Circuit).

In the case of shipwrecks lost for many decades, witnesses and documents will be unavailable to meet this burden and, without the ability to draw factual inferences of abandonment based on the totality of the circumstances, admiralty courts will have to award title to those interposing stale, exaggerated and perhaps fraudulent claims. And to the extent that scientists developing evidence through their exploration link specific long-lost objects to particular claimants, they will be similarly penalized, and conversely, have a disincentive to develop such information. Science, discovery, education and mankind will all suffer.

This sends the wrong message to our nation's young people who are considering science as a career. A rule of law that penalizes advances in marine technology, scientific inquiry and learning is wrong. The law should encourage, rather than discourage, the scientific acquisition of knowledge.

CONCLUSION

For the foregoing reasons, the National Association of Academies of Science respectfully urges the Court to grant the petition for a writ of certiorari.

Respectfully submitted,

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